



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/692,171   | 10/23/2003  | Edgar A. O'Rear III  | 5820.643            | 8356             |
| 30589  | 7590        | 02/08/2005           | EXAMINER            |                  |
| DUNLAP, CODDING & ROGERS P.C.<br>PO BOX 16370<br>OKLAHOMA CITY, OK 73113 |             |                      |                     | AHMED, SHEEBA    |
|  |             | ART UNIT             |                     | PAPER NUMBER     |
|  |             |                      |                     | 1773             |

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/692,171             | O'REAR ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Sheeba Ahmed           | 1773                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diehl et al. (US 5,623,015).

Diehl et al. disclose a latex binder composition comprised of vinyl-substituted aromatic monomers such as styrene (Column 2, lines 26-43) a free radical initiator such as sodium persulfate (Column 4, lines 7-10) and an anionic surfactant such as sodium dodecyl sulfate (Column 5, lines 33-40). The polymerization is generally carried out at a temperature of 55 to 95°C (Column 5, lines 61-62). The latex binder composition may be applied to non-woven cellulose substrate such as paper and other substrates containing polyester, nylon or acrylates (Column 6, lines 29-35). Accordingly, it would have been obvious to one having ordinary skill in the art to pick any of the vinyl-substituted aromatic monomers, free radical initiators and surfactants listed given that all are taught by Diehl et al. as equivalents of each other.

2. Claims 1-5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raynolds et al. (US 5,919,716).

Raynolds et al. disclose self-crosslinking polymer compositions useful as coatings for non-woven fabrics (Column 1, lines 10-15) and comprising a vinyl polymer component such a styrenic monomer (Column 3, lines 1-10 and Column 4, lines 27-29), a crosslinker such as sodium persulfate (Column 3, lines 24-26 and Example 1) and a surfactant such as sodium dodecyl sulfate (Column 5, lines 20-30). The reaction is carried out at a temperature of 20 to 90°C (Column 5, lines 50-55). Example 1 indicates that the reaction can be carried out a temperature of 60°C for one hour. Substrates that may be coated with the self-crosslinkable polymeric composition include polyesters, PP, PE and cellulose substrates (Column 10, lines 23-28). Accordingly, it would have been obvious to one having ordinary skill in the art to pick any of the vinyl-substituted aromatic monomers, free radical initiators and surfactants listed given that all are taught by Raynolds et al. as equivalents of each other.

3. Claim 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raynolds et al. (US 5,919,716) in view of Pickelman et al. (US 4,582,663).

Raynolds et al., as discussed above, do not disclose that the initiator may be AIBN, i.e., azobisisobutyronitrile.

However, Pickelman et al. teach that persulfates and azo compounds such as AIBN and sodium persulfate are known equivalents as conventional polymerization initiators (Column 5, lines 3-10) and therefore, because these two initiators were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute AIBN for sodium persulfate.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Mondays and Thursdays from 9am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (571)272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sheeba Ahmed  
Art Unit 1773  
February 7, 2005